



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/931,936	08/20/2001	Li-Kuei Lin	3313-0372P-SP	4647
2292	7590	09/21/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			DESHPANDE, KALYAN K	
			ART UNIT	PAPER NUMBER
			3623	

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/931,936

Applicant(s)

LIN ET AL.

Examiner

Kalyan K. Deshpande

Art Unit

3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Introduction

The following is a non-final office action in response to the communications received on August 2, 2001. Claims 1-25 are now pending in this application.

Claim Objections

1. Claim 1 is objected to because of the following informalities: the term "he" in line 7 should be "the". Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-18 refer to a capacity demand "unit" and a material demand "unit". The term "unit" here is unclear as to its meaning. For example, a unit can mean data, software, hardware or a combination of software and hardware.

Claims 4 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Both claim 4 and claim 14 are directed to a system and the limitation recited in these claims is further directed to a step. It is unclear as to how the system comprises a step. A system typically comprises structural components whereas a method comprises steps.

Art Unit: 3623

Claims 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 12 limits the module to where the capacity demand and the material demand are connected via the Internet. It is unclear how the capacity and material demand are specifically connected via the Internet.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1-25 describe functionally descriptive material and are non-statutory because they are not capable of causing a functional change in a computer. See MPEP §2106. The present invention describes data structures not specifically stored in computer readable medium. For example, the capacity demand unit being data stored in a storage medium does not affect the functionality of the overall system.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3623

6. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lidow (U.S. Patent No. 6889197).

As per claim 1, Lidow teaches:

A capacity and material target forecasting system used in SCM (Supply Chain Management) of manufacturing industries, which comprises:

a storage medium, which stores data for making the capacity and material target forecast including at least:

a capacity demand unit, which determines the capacity demand according to a product order given from a client end (see col. 13 lines 11-21; where customers submit their orders and the server consolidates the orders into supplier part numbers resulting in the customer (capacity) demand);

a material demand unit, which determines the material demand according to a material purchasing order sent to a supplier in accordance with the capacity demand (see col. 13 lines 39-42; where the supply chain server analyzes the customer demand with the available supply the suppliers have. This analysis determines the material demand for the suppliers); and

a capacity and material demand reporting unit, which executes computation of the capacity and material plan through an enterprise resource plan for a decision-maker's reference (see col. 12 lines 38-46; where the Planning Module is responsible for matching the customer demand with a source of suppliers.

Art Unit: 3623

This data is tracked and managed in daily management reports generated by the system); and

a capacity and material target forecasting module including at least:

a capacity and material demand forecasting unit, which uses a supply chain management software to generate trading data, performs forecast for the capacity demand and the unconstrained material demand, then performs forecast for the capacity demand and the constrained material demand, generates a preliminary capacity and material demand forecasting report, and outputs a supply chain planning result through the supply chain management software according to the preliminary capacity and material demand forecasting report (see col. 12 lines 38-46 and 65-68, col. 13 lines 1-5 and 33-48 and col. 17 lines 49-51; where the system monitors trading data such as industry trends and commodity/product trends and the system takes inputs such as customer demand (quarterly or thirteen week forecasts) and the current capacity of suppliers which are managed in daily management reports. The system further determines a plan of matching the customer demand with the constraints on the suppliers and this plan is sent to suppliers.); and

a decision adjusting unit, which makes purchasing adjustment according to the preliminary capacity and material demand

Art Unit: 3623

forecasting report and outputs an actual capacity and material demand report, which is sent to the supplier for adjusting the material demand (see col. 15 lines 7-42; where the actual capacity of suppliers is validated and capacity issues are resolved by sending a notification to suppliers and customers, thereby allowing customers to abort or change their forecasts and these changes are reflected in the adjusted forecasts).

As per claim 1, Lidow fails to teach:

to run a batch operation

Official notice is taken that it is old and well-known in the art of software programming to execute programs in batch. The advantages of executing an operation in batch are that all of the data is processed in the same timeframe thereby enhancing production efficiency, all necessary system resources can be dedicated to executing the batch operation, and the execution can be done offline such that no users are affected by running the batch operation. For example, a system that organizes and prioritizes purchase orders can be run in batch in order to group purchase orders that require the same materials and labor, thus further enabling the organization of production orders. By running these purchase orders in batch offline, the data is organized to enhance efficiency (such that purchase orders requiring the same materials and labor can be run through production at the same time) and no users are interacting with the system thereby not affecting any users and more system resources are available to execute the batch operation. Therefore, it would have been obvious at the

Art Unit: 3623

time of the invention to one of ordinary skill in supply chain management to execute the operation in batch in order to organize the data to enhance production efficiency, allocate the necessary system resources to execute the batch operation, and not affect other users of the system by running the batch operation offline.

As per claim 2, Lidow teaches:

The system of claim 1, wherein the client and the supplier are connected through the Internet and the business trades and information transmissions are performed through a B-to-B platform (see col. 26 lines 63-68, col. 27 lines 1-55, fig. 22 and fig. 24; where suppliers, customers, and banks can be connected via the Internet and all input from suppliers and customers, such as business trades and information transmissions, are performed on the supply chain server, where the supply chain server serves as a b-to-b platform).

As per claim 3, Lidow teaches:

The system of claim 1, wherein the trading data include one combination selected from the group comprising items, purchasing orders, production orders, actual shipping, open sales orders, on-hand stocks, BOM's (Bill Of Material), material related data, vendor source lists, and quotation of prices (see col. 12 lines 58-68 and col. 13 lines 1-5; where the trading data is customer forecasts (purchase orders), ad hoc orders (purchase orders), or current capacity information from the supplier (on-hand stocks)).

As per claim 4, Lidow teaches:

Art Unit: 3623

The system of claim 1 further comprising the step of updating the supply chain plan result in the enterprise resource plan (see col. 17 lines 63-64, col. 18 lines 9-11, and col. 27 lines 43-55; where purchase orders and payment updates are maintained in the ERP system).

As per claim 5, Lidow teaches:

The system of claim 1, wherein the decision adjusting unit further allows a decision maker to adjust the purchasing plan (see col. 13 lines 49-66; where the system allows for planners to intervene to make any necessary adjustments).

As per claim 6, Lidow teaches:

The system of claim 1 further providing a GUI (Graphics User Interface) to perform forecasting operations (see col. 28 lines 1-14; where the planner support tool allows planners to manipulate forecast, demand, and supply data).

As per claim 7, Lidow teaches:

The system of claim 1, wherein the purchasing plan adjustment also performs different material resource plans according to a branch PIR (Planned Independent Requirement) (see col. 13 lines 42-45; where the supply chain server reassigns excess customer demand to a different supplier, thereby creating a different material requirement plan for the secondary supplier. The secondary suppliers serve as branches because they are other sources for material procurement.).

As per claim 8, Lidow teaches:

Art Unit: 3623

The system of claim 7, wherein the branch PIR takes into account the branch attributes and orientations (see col. 13 lines 45-48; where a secondary supplier is chosen based on customer's preferences or other algorithms).

As per claim 9, Lidow teaches:

A capacity and material target forecasting module used in the SCM for manufacturing industries to forecast an actual capacity and material demand according to a capacity demand and a material demand in order to minimize material stocks, which module comprises:

a capacity and material demand forecasting unit, which uses a supply chain management software to generate trading data, performs forecast for the capacity demand and the unconstrained material demand, then performs forecast for the capacity demand and the constrained material demand, generates a preliminary capacity and material demand forecasting report, and outputs a supply chain planning result through the supply chain management software according to the preliminary capacity and material demand forecasting report (see col. 12 lines 38-46 and 65-68, col. 13 lines 1-5 and 33-48 and col. 17 lines 49-51; where the system monitors trading data such as industry trends and commodity/product trends and the system takes inputs such as customer demand (quarterly or thirteen week forecasts) and the current capacity of suppliers which are managed in daily management reports. The system further determines a plan of

Art Unit: 3623

matching the customer demand with the constraints on the suppliers and this plan is sent to suppliers.); and
a decision adjusting unit, which makes purchasing adjustment according to the preliminary capacity and material demand forecasting report and outputs an actual capacity and material demand report, which is sent to the supplier for adjusting the material demand (see col. 15 lines 7-42; where the actual capacity of suppliers is validated and capacity issues are resolved by sending a notification to suppliers and customers, thereby allowing customers to abort or change their forecasts and these changes are reflected in the adjusted forecasts).

As per claim 9, Lidow fails to teach:

to run a batch operation

This limitation is recited in claim 1 of this invention and is addressed in the rejection of claim 1; therefore the same rejection applies to this claim.

As per claim 10, Lidow teaches:

The module of claim 9, wherein the capacity demand is determined according to a product order given from a client end (see col. 12 lines 57-64; where the supply chain server determines the capacity demand when it receives a customer's forecast from the customer).

As per claim 11, Lidow teaches:

The module of claim 9, wherein the material demand is determined according to a material purchasing order sent to a supplier in accordance with the capacity demand (see col. 15 lines 43-55 and col. 17 lines 49-51; where the capacity

Art Unit: 3623

demand is analyzed and aggregated, then a purchasing plan is sent to the supplier. The material demand is the amount of product, capacity demand of the customer, required by the customer).

As per claim 12, Lidow teaches:

The module of claim 9, wherein the capacity demand and the material demand are connected via the Internet and the business trades and information transmissions are performed through a B-to-B platform (see col. 26 lines 63-68, col. 27 lines 1-55, fig. 22 and fig. 24; where suppliers, customers and banks can be connected via the Internet and all input from suppliers and customers, such as business trades and information transmissions, are performed on the supply chain server, where the supply chain server serves as a b-to-b platform).

As per claim 13, Lidow teaches:

The module of claim 9, wherein the trading data include one combination selected from the group comprising items, purchasing orders, production orders, actual shipping, open sales orders, on-hand stocks, BOM's (Bill Of Material), material related data, vendor source lists, and quotation of prices (see col. 12 lines 58-68 and col. 13 lines 1-5; where the trading data is customer forecasts (purchase orders), ad hoc orders (purchase orders) or current capacity information from the supplier (on-hand stocks)).

As per claim 14, Lidow teaches:

The module of claim 9 further comprising the step of updating the supply chain plan result in the enterprise resource plan (see col. 17 lines 63-64, col. 18 lines

Art Unit: 3623

9-11, and col. 27 lines 43-55; where purchase orders and payment updates are maintained in the ERP system).

As per claim 15, Lidow teaches:

The module of claim 9, wherein the decision adjusting unit further allows a decision maker to adjust the purchasing plan (see col. 13 lines 49-66; where the system allows for planners to intervene to make any necessary adjustments).

As per claim 16, Lidow teaches:

The module of claim 9 further providing a GUI (Graphics User Interface) to perform forecasting operations (see col. 28 lines 1-14; where the planner support tool allows planners to manipulate forecast, demand, and supply data).

As per claim 17, Lidow teaches

The module of claim 9, wherein the purchasing plan adjustment also performs different material resource plans according to a branch PIR (Planned Independent Requirement) (see col. 13 lines 42-45; where the supply chain server reassigns excess customer demand to a different supplier, thereby creating a different material requirement plan for the secondary supplier. The secondary suppliers serve as branches because they are other sources for material procurement.).

As per claim 18, Lidow teaches:

The module of claim 17, wherein the branch PIR takes into account the branch attributes and orientations (see col. 13 lines 45-48; where a secondary supplier is chosen based on customer's preferences or other algorithms).

Art Unit: 3623

As per claim 19, Lidow teaches:

A capacity and material target forecasting method used in the SCM of manufacturing industries, which comprises the steps of:

using a supply chain management software to generate trade data

(see col. 12 lines 57-65; where customers' demand and

supplier's capacity are input into the system);

performing capacity demand and unconstrained material demand

forecast according to the trade data and generating a

preliminary material demand (see col. 12 lines 57-65; where

customer's quarterly or thirteen week forecasts (capacity

demand), and suppliers' capacity (material demand) is

generated);

performing the capacity demand and the constrained material

demand forecast according to the preliminary material demand

and generating a preliminary capacity and material demand

forecasting report (see col. 12 lines 57-65; where customer's

quarterly or thirteen week forecasts (the capacity demand) and

suppliers' capacity (material demand) is generated);

executing a branch PIR according to the preliminary capacity and

material demand forecasting report and outputting a supply

chain planning result through the supply chain management

software (see col. 13 lines 42-45; where the supply chain server

reassigns excess customer demand to a different supplier,

Art Unit: 3623

thereby creating a different material requirement plan for the secondary supplier); and performing purchasing adjustment according to the preliminary capacity and material demand forecasting report and outputting an actual capacity and material demand report, which is then sent to a supplier to adjust the material demand (see col. 15 lines 7-42; where the actual capacity of suppliers is validated and capacity issues are resolved by sending a notification to suppliers and customers, thereby allowing customers to abort or change their forecasts and these changes are reflected in the adjusted forecasts).

As per claim 19, Lidow fails to teach:

to run a batch operation

This limitation is recited in claim 1 of this invention and is addressed in the rejection of claim 1; therefore the same rejection applies to this claim.

As per claim 20, Lidow teaches:

The method of claim 19, wherein the trading data include one combination selected from the group comprising items, purchasing orders, production orders, actual shipping, open sales orders, on-hand stocks, BOM's (Bill Of Material), material related data, vendor source lists, and quotation of prices (see col. 12 lines 58-68 and col. 13 lines 1-5; where the trading data is customer forecasts (purchase orders), ad hoc orders (purchase orders) or current capacity information from the supplier (on-hand stocks)).

Art Unit: 3623

As per claim 21, Lidow teaches:

The method of claim 19 further comprising the step of updating the supply chain plan result in the enterprise resource plan (see col. 17 lines 63-64, col. 18 lines 9-11, and col. 27 lines 43-55; where purchase orders and payment updates are maintained in the ERP system).

As per claim 22, Lidow teaches:

The method of claim 19, wherein the purchasing adjustment further allows a decision maker to adjust the purchasing plan (see col. 13 lines 49-66; where the system allows for planners to intervene to make any necessary adjustments).

As per claim 23, Lidow teaches:

The method of claim 19 further providing a GUI (Graphics User Interface) to perform forecasting operations (see col. 28 lines 1-14; where the planner support tool allows planners to manipulate forecast, demand, and supply data).

As per claim 24, Lidow teaches:

The method of claim 19, wherein the purchasing adjustment also performs different material resource plans according to a branch PIR (Planned Independent Requirement) (see col. 13 lines 42-45; where the supply chain server reassigns excess customer demand to a different supplier, thereby creating a different material requirement plan for the secondary supplier. The secondary suppliers serve as branches because they are other sources for material procurement.).

As per claim 25, Lidow teaches:

Art Unit: 3623

The method of claim 24, wherein the branch PIR takes into account the branch attributes and orientations (see col. 13 lines 45-48; where a secondary supplier is chosen based on customer's preferences or other algorithms).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following are pertinent to the current invention, though not relied upon:

Wei (U.S. Patent No. 6889106) teaches a master production scheduling system and method for efficiently generating master production schedules.

Dietrich (U.S. Patent No. 6272389) discloses a method for developing a production plan with respect to the available capacity.

Lim (Lim, Beng F., "A Manufacturing Resource Planning System", University of Alberta, Edmonton, Alberta, Spring 1999) teaches a the basic elements of a manufacturing resource planning system, including forecasting, master production schedule, resource requirement planning, and capacity requirements planning.

Kumar et. al. (Kumar, Sameer; Chandra, Charu; Stoerzinger, Mike, "Serve Your Supply Chain, Not Operations - A Case Study", Industrial Management and Data Systems, v101n8/9 pp: 414-425, 2001) discloses research to identify and pilot an improved planning and fulfillment process.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kalyan K. Deshpande whose telephone

Art Unit: 3623

number is (571)272-5880. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KKD
kkd

Susanna Diaz
SUSANNA M. DIAZ
PRIMARY EXAMINER
Au 3623